



## THE MINING JOURNAL,

NORTH BRITISH RAILWAY COMPANY

A meeting of the present shareholders in the proposed line of railway from Edinburgh to Berwick was held on Tuesday last, at the Waterloo Rooms, Edinburgh, to receive the report of the provisional committee, Sir James Fergusson, Bart., in the chair.—The Chatteraway congregation had a prospect of seeing their object accomplished; and hoped they now Mr. Davidson (the clerk) to read the report, which stated, that the necessary steps for the formation of the company; had taken all the measures which had been laid before the Government engineers, to those employed by the company, in order to adopt any alterations which would be necessary to consider if they could meet the wishes of the inhabitants of Haddington, to carry the line through that town; the committee had, however, decided to carry it north of the Carlton Hills, to which the Government commissioners had acceded—which, including a branch to Haddington, about four miles, would cost £60,000 less than by the other route, and which it was understood would annoy a great portion of the inhabitants. They had also used every exertion in their power to get the share list in a condition to enable them to apply to Parliament in 1844, and, after a mœurs completed for £60,000, including what is considered a liberal allowance for the price of land. The sum already subscribed was £283,000, and a very little exertion would place them in a position to proceed at once with the necessary measures for carrying out the objects of the company.—The report (which was of considerable length) was then agreed to, under the title of the "North British Railway Company," with a capital of £1,000,000, in shares of £100 each, which was carried unanimously.—Mr. Rossen moved—"That the powers of the directors be confirmed until the Act could be obtained," which was also carried; and Mr. Cawell, to state to them the advantages of the measure, and urge upon them the duty of supporting it;" this motion was carried, but the time for calling the meeting left to the discretion of the committee.—A nomination was then passed nominating the number of directors to twelve, with a chairman, the meeting separated.—For resolutions see advertising columns.

**AMERICAN STEAM EXCAVATOR—“YANKEE GEORGE.”**—A full description of the

" Having availed himself of a recent invitation, from Messrs. Eastwick and Harrison, engineers and manufacturers of this place, to view these well-constructed steam excavators, which these gentlemen have just completed for the Empress of Russia, and are about to ship for that country, to be used upon the extensive railways about to be commenced, the writer collected a little information relative to them, which may, possibly, interest some of the readers of this journal. These steam excavators, devised by the late ingenious Mr. Olin, are really high efforts of inventive talent, and will do credit to American ingenuity wherever they are seen and used. But seven of these machines have yet been built, the whole cost of which, excepting the first, having been made by Messrs. Eastwick and Harrison; the first was partially completed at various workshops, under the direction of the inventor, Mr. Olin, in person; but finding some difficulty in organizing and fitting up so complicated a machine, by this method of proceeding, he, fortunately, placed it in the hands of Messrs. Eastwick and Harrison, who skilfully perfected the details, and gave every good proportion to the several parts, that all the mechanism constructed in fitting up the experimental one, have proved, in practice, to be completely successful, though it has been deemed advisable to give augmented strength

The present price of these machines in Philadelphia is \$1000 dol., by consequence of the patterns being now on hand, and of the complete system introduced by these excellent mechanics, into the manufacture of this new machine, it seems probable that Messrs. Eastwick and Hartwell will soon offer them even at lower rates.

The high-pressure steam-engine, which operates each of the compressors shown by the writer, has a single cylinder, of nine inches in diameter, a one foot stroke—the speed of the piston being usually about 200 feet per minute, when the pressure on the safety-valve is 100 lbs. per square inch, and, consequently, in the ordinary mode of compelling small high-pressure engines, it will receive almost fifteen horse-power. From the large amount of work which has already been done by one of these machines, in an active service of several years, there seems to be but little doubt, that over those, in a continuous working day, one dig and load from 1000 to 1200 lbs. yards of average earth. The swamp will contain about a million cubic yards, measured in the cut, and a continuous day's work is 10000 full dips, the swamp, but 1200, or 1300, have frequently been made; we may, therefore, from our present information, set down, as a certain average, two cubic yards excavated and loaded open carts per day.

1000 cubic yards excavated and used up.

It will be borne in mind, that the "Yankee Geologist," merely does digging and hauling, or the getting and lifting—the transportation, dragging, trussing, etc., remaining the same as though the men had been hired by the labour of men, in the usual manner. In heavy excavations of 1000 cubic yards, where a large number of men have been employed, the work has often observed, that the work of hands rarely averaged more than 1000 cubic yards, loaded into a cart per day, per man—the earth being severely impeded by the pick or plough. Now, taking the wages of at 1 dol. per day, including all charges, and putting the amount of moderate estimate of 1 cent per cubic yard, the actual cost of digging and hauling, in an average case of heavy earthworks, would be about 1 cent per yard. We will now, from this last information deduce an estimate of the probable cost of excavating and hauling ordinary earthworks.

end of the "Yankee Shelling."

**QUESTION** No. 1000. **ANSWER** No. 1000.  
Bacteriostatic water used for injection. In my opinion,  
these words of **ANSWER** No. 1000, are **NO ANSWER**,  
and **NOT EXPLAINING**. As I do not know  
what **ANSWER** No. 1000 means.  
**ANSWER** No. 1000, **ANSWER** No. 1000, **ANSWER** No. 1000.

Using explosives per minute—  
Now, in 2000 working days, this machine would, from the data  
available and all have been stored 2000,000 pounds, and hence it would  
cost, that where it is able to work 1000 days in a year, this machine  
digging and loading ordinary earth, at the extraordinary low rate of \$3 per hour,  
allowing for contingencies, say, 1.5 cents per cubic yard, which is only  
one-third of what it would cost by present labor. Such is the way  
in which the writer has been led by his impressions laid before  
by Minot, Brewster and Garrison, and which, if it be even approxi-  
mately, would allow to break up labor from the digging

**Missouri Taxon.**—A notice was made in the House of Commons during the last session of Parliament, 1851, of the arrival of Mississagi coal and pitch measured by each railway company, under the head of Drift Coal. The amount received by the London and North Western Railway, 1850-1, made up to the 1st January, 1851, was £1,000,000. The amount received by the Great Western Railway, 1850-1, made up to the 1st January, 1851, was £1,000,000. The total amount paid by all the railway companies for coal sent up to the 1st January, 1851, was £1,000,000. In 1852, for coal measured by the six largest names were compensated by the following:

(1) Who Great Western, Southern and Charlestown, and  
(2) Who Great Western, Southern and Charlestown, and  
Southern and Eastern. The Great Western, Southern and Charle-  
western and Southern is merged into the Great Western?

**SUPERIOR AUCKLAND AND WEARDALE RAILWAY**

This railway, which, though but seven miles in length, has taken six years through its completion, commenced by the 1887 popular election of the constituency to which we briefly alluded in the *Mining Journal* of last week. On that day coaches left the Darlington station at half-past nine in the morning, and arrived at Creek in time to join the "opening train" in its progress to Middlesbrough; between 300 and 400 individuals accompanied the procession with flags, banners, &c., the former bearing one of great magnificence. Six coal trains, consisting, together, of 264 wagons, followed the passenger train, and presented a most imposing sight. On leaving Creek, the first great work which strikes the passenger is the viaduct across the Wear; this imposing structure is forty feet high, three feet lower, built entirely on piles, and thoroughly substantial. After leaving Witton Park and Elsecley Collieries, four feet high, supported by a circular cutout of extraordinary magnitude, being 400 feet long. The river Gaunless, in the Holderness Valley, is spanned by a cutout of almost similar dimensions, and containing an embankment seventy feet high—in fact, exactly a hundred yards of this line has been formed either on an embankment or in a cutting. It is intended to extend it nine miles further, to Meaux Slacks, and, probably, eventually it may unite with the Newcastle and Carlisle Railway. Three stations will be erected on the wet desolate open.

The opening of the Bishay-Auckland and Woodhead Railway is of great importance to the interests of the Woodhead district, which has hitherto been almost shut out from the markets of the country, notwithstanding the great value of the productions with which it abounds. The district is celebrated for the great limestone formation at Frosterley, Stanhope, &c., so noted amongst farmers for its fertilising properties. The opening of the line will, therefore, form a ready outlet for this valuable production, and thus bestow a great advantage upon the agricultural population. There is also another stone in great abundance in the district, as well as lead and ironstone; portions of copper have likewise been found—and several proprietors of land contemplate doing considerable business in this article. All these productions may be had in great abundance, independent of coal; and, such being the case, the advantages to the district, which are sure to follow the opening of the new line, will be incalculable. Besides the collieries which have for some time been in operation, a new one, of excellent quality, has been "won" within the short space of seven weeks, by T. C. O'Brien, Esq., in a field called Woodfield, leased from G. H. Wilkinson, Esq., and situated at the present terminus of the railway at Crook—a great quantity of which was taken by the trains on this occasion, and shipped at Middlesbrough.

The directors and visitors returned to Darlington, where they arrived at half-past four, when about eighty gentlemen sat down to an elegant repast, provided by the directors, G. H. Wilkinson, Esq., took the chair, and H. P. Smith, Esq. (of Hallgarth), the vice-chair, and, after the removal of the cloth, and the usual preliminary toasts had been drunk, the chairman proposed "Prosperity to the Bishop Auckland and Wearside Railway,"—said that, after the lapse of six years, they had succeeded in opening the line—the length of time might appear long to the uninitiated, but when the difficulties they had had to encounter, were known, the surprise would vanish; they had contingent difficulties, engineering difficulties of no mean order, and difficulties which could not be considered small, but the heartburnings from which he trusted were now for ever buried in oblivion. In the first place, the pernicious Act of Parliament, which meant no Act to enable all persons to cross all they could out of the Bishop Auckland Railway, but the undertaking was dependent on the completion of other great works, until which time, this line could not have been effected if finished—he alluded to the Skipton Tunnel and Middlebrough Docks. As to the engineering difficulties, they had had enormous, only a few yards, at all events, so much earth to be cut, and to be one continued system of cutting and embankment of the most rigorous character from beginning to end. Though he had expected, on the commencement of the undertaking, that perseverance would alone complete the work, he little calculated on the Genius they would have to cut through. He then alluded to the trade which would be developed in the neighbourhood of the line, the whale district abounding in iron, coal, lead ore, and the famous Frosterley lime, so long esteemed for agricultural purposes and associated, by proposing the toast, which was drunk with enthusiasm. He next proposed "Coalfield Success to the Oldest Locomotive Line in the Kingdom—the Stockton and Darlington Railway," and stated, that without their line, which had that day been opened, could never have come into existence.—Mr. Fausse returned thanks, alluding to the mineral riches of Durham—the wide and broad meads in her valleys teeming with richsoil fertility, and homogeneous stocks and herds upon the hills, and an extensive system of railways, enabling them now to show their own produce in market unbroken before.

HARRISBURG AND KNOXVILLE RAILWAY TO BOSTON.—  
Several industrial parties of the above towns, Tunkhannock, etc., have presented a proposal to the State of New York to build a line from Harrisburg by Knobertonburgh, to join the V. & W. at Bingham Ferry—a distance of sixteen miles—and from thence to form a direct communication with the North Mainland at Newmarket—thus connecting all parts of the north and west of England, and it is believed will open and rapid a communication which will induce great numbers to visit Harrisburg in the season, instead of going to Bingham, Harrisburg, etc.; the jaded and钝化的 mineral waters would be more interesting, while the beauty of Shadley Park, Fonthill Abbey, Buckton Abbey and grounds, Knoberton, Bremham and Flimington Hall, and the famous sports, would bring a host of visitors who, without the expense of a railway, could not spare time to visit this interesting neighborhood. Mr. Joseph Lomax, the celebrated railway engineer, has surveyed the route on his engineering plan of view, and with the cost of \$100,000 and a chain at the Harrisburg terminus, with a view to 1850, the gratification will be of as easy and unimpeded character. A sum of \$100,000, etc., therefore, would easily suffice, to be raised in sixteen of the next, and no increase, estimation on the road moderate being proposed, which will pay off about 15 per cent. for the capital invested. The cost of the line proposed by Mr. Lomax, after leaving the station, between Harrisburg and Knobertonburgh, is by the south end of the C. Valley to Broad Head, over Spudfield, then which goes up to Changes or Drayton, passing through Wimberly on a level, then passes under the York Turnpike road to Wilson and Wiggle, and presents in a straight line to Tunkhannock, and from the latter place by the village of Ormea, will lead to the North Mainland, etc., to Bingham Ferry.

York and South Yorkshire see as above.

**Derbyshire and Nottinghamshire.**—**Derbyshire**.—A general general meeting of the shareholders in this company was held on Tuesday week, at the Exchange Buildings, Derby, when Joseph Price, Esq., presided.

concerning the propriety of expelling Joseph Price, and the motion was carried, from the board of directors.—Andrew White, Esq., (the president) called to the chair.—Mr. J. J. Wright introduced the business, and placed the motion who the present crops were taken. He stated the Price had brought a variety of unfounded charges against the directors, and was proved to be a scoundrel, yet he still persisted in them, and to exonerate himself represented a document that he might have every opportunity concerning the result of his accusations; since this, although he was very connected and had a world of friends, he presented this to the white sealed three o'clock, and the next existence of the railway demanded action, so he became an exiled and dispossessed man on his home soil, and died so with him.—Mr. G. T. Gilmore warmly defended Mr. Price, and moved to vote each member for the prosperity of the line, and a vote was passed towards the poor rights of the shareholders.—Resolved, to sue the suit against the section, and Mr. H. Hansen proposed Mr. Price would proceed to collect from "communists" opportunities should be released, which, however, was not considered, and the meeting was closed.

ODDON'S PATENT FURNACE—SMOKE PREVENTION.

A very interesting experiment has been carried on during the last six months at the steam-engine manufactory at this extensive dockyard, with the view of testing the value and efficiency of a smoke-preventing apparatus, known under the designation of Godson's patent furnace, and the result has proved so highly satisfactory, as to induce a belief that its general introduction would greatly improve the health of towns, especially those where large furnaces are constantly in operation for manufacturing or other purposes. It is evident to the most casual observer, that the dense masses of smoke seen issuing from the chimneys of furnaces and the funnels of steam-vessels when such coils are thrown on the fire, is composed almost entirely of coal in an impulsive state, carried into the upper atmosphere by the draught of air required to assist combustion; and in calm weather, the oxygen inhaled by the inhabitants of towns, or near manufacturers, where large fires are constantly kept, is charged to a great extent with these floating particles in their descent to the earth, which must impede the healthful operations of the lungs when accumulated in the organs of respiration. The inventor of a means of eradicating this great nuisance of large towns and manufacturing establishments, deserves that his discovery should be made known for the benefit of the public, even were its introduction attended with additional expense, which is not the case, as the saving in fuel being 15*per cent.*, compared with the original application of the apparatus, which appears to be simple and effective, and more durable than any other having the same objects in view. Mr. Lloyd (chief engineer of the Woolwich Dockyard), on the 2nd June, 1842, reported to Sir Francis Collier (captain superintendent), on this invention, that nearly the whole of the smoke is consumed, and that during the day, 1843, in answer to a memorandum, directing him to state whether he had any further observations to make upon Mr. Godson's smoke consuming apparatus, returned the following answer:—"I beg to state that the apparatus continues to answer, as far as regards the prevention of smoke and the generation of a sufficient supply of steam, even when the engine is fully loaded, and if the apparatus should prove durable, I see no reason why it may not be applied to land-houses, wherever it is considered a matter of importance to be without smoke." The engine used in the factory at Woolwich is of 20-horse power, and there is a cleanliness and absence of dust in the furnace-room which renders it quite comfortable; and were the ingenuity of the patentee applied, he might introduce his invention to every description of grates for dwelling-houses, and instead of servants having to throw coal on the fire during the day, a sufficient quantity might be laid on in the morning for the day's consumption, and after the first ignition, no further smoke would be visible, but a constant bright fire be kept, and the danger of fire from the chimneys completely removed, and thereby confer a great public benefit.

## MR. BUDDLE AND HIS DETRACTORS.

Mr. Edward Smith, of Pontop Colliery, has favoured us with a communication in reply to a letter signed "A. B.," which appeared in a recent Number of the *Mining Journal*. "A. B." finds, as the "result" of the late Mr. Buddle's "improvements" in mining, "little else than" "a vast amount of fatherless children and widowed wives." Our correspondent is indignant at this "cruel" comment on the career of the deceased, and characterises it as no less false than unfeeling. He and his father together were engaged upwards of half a century with Mr. Buddle and his father, and he claims to be a more competent judge than "A. B.," from professional knowledge and opportunity of observation, of the merits of the deceased. "I am more acquainted with Mr. Buddle's improved method of working and ventilating coal mines than 'A. B.' or his informer can be. The first consists in working the coal by districts; which method, in point of economy and dispatch, in obtaining the greatest quantity of coal in the best state of perfection, is unquestionably superior to any other than has yet been discovered. The second is the system of compound ventilation, with the use of the dumb furnace drift; and I am fully satisfied, after many years' practice, that if every officer on the colliery, supreme and subordinate, were perfectly acquainted with this system, and carried out Mr. Buddle's intention to their full extent, with a judicious use of the Davy lamp when necessary, no serious accident would ever happen from inflammable gas." It is when Mr. Buddle's plans are departed from (says Mr. Smith) that accidents occur [and to cast upon him the responsibility and the blame, would be as fair and honest as to condemn the inventor of the locomotive-engine, when collisions or other disasters, took place, through the ignorance or negligence of engineers]. Then, referring to "A. B.'s" remarks on the explosion at Wall's End in 1821, our contributor observes:—"Mr. Rose and I [Mr. R. is still alive, intending to brave the effects of the after-damp, and try, if possible, to rescue some of our fellow-men from their perilous situation. I was down the pit seven times before we could get any other party to volunteer their services, to assist us in the dangerous undertaking; and though greatly fatigued, I succeeded in bringing the first man to bank. As I am so fully acquainted with all the circumstances connected with that dreadful accident, when fifty-two human beings were so suddenly hurried into eternity, I would exonerate Mr. Buddle from all blame, and say that it is my belief that it originated (not from want of sufficient area in the shaft, nor from imperfect ventilation), but entirely from the culpability of the furnace-keeper, in carelessly leaving the furnace, and going to a feast, where he spent the night in revellation, and issued a healthy current of air, there was a comparative stagnation in the underground workings, which terminated in the disaster in question. This fact came out, and was only fully established, after the inquest, or, I have no doubt, the individual, for such criminal neglect, would have been brought to justice, and visited with the punishment due to his conduct. Had it not been for the urgent and unfeeling observations made by the author of the letter in the *Mining Journal*, the fact, for me, should have been buried in oblivion." Mr. Smith, whose letter we are unable to give in full, concludes with a warm eulogium on the deceased, and an expression of his determination, to defend his memory from malignant calumniators.

**Tunbridge Lights.**—The clear and mellow light which is attained by the use of this burner with no smoke accompany, is rapidly making its way throughout the Kingdom. The number of public buildings of all descriptions now fit with it, but the private orders which are pouring in from all parts of the kingdom, show that a knowledge of its superior brilliancy has cast, is spreading rapidly throughout the Kingdom. During the last week at the Hall of Commons, many of the worthy agriculturists who were present, had been heard expressing their surprise whence the light was obtained in the large room which contains only three burners. The large room at the London Coffee-house, Lincolns-inn, is now lit and ventilated by Mr. Lethbridge's principle, and has given the most complete satisfaction to Mr. Lever, who grows out his guests; during a dinner when the room was crowded, it remained only sufficiently warm to be desirable. The large room of the Society of Arts, Adelphi, is now illuminated by one burner only, hung from the centre in a handsome chandelier, and diffuses a mellow light in every corner of the apartment, showing the splendid paintings and other works of art to great advantage. The following buildings have also lately been fitted with the Shower-light—viz.—St. Mary's Church, Old Bond-road, Covent-garden, and the London Docks ; and the Unicorp, the Diamond, the Union, the Insurance, and the Phoenix Gas Companies are patronising and

**Plymouth, Devonport, and Eastern Railway.**—The directors are now considering a proposal for proceeding with a degree of activity which will enable them to give effect to the original scheme of the company, and to make the railway available for the use of the public as soon as possible. The survey is now completed, and the plans have been submitted to the engineer, Mr. T. B. Keay, who has been engaged by the company to superintend the construction of the line. The survey shows that the distance between the two stations will be about 1½ miles, and the cost of the work will be estimated at £100,000. The line will be double track throughout, and will be capable of carrying 100 passengers per hour in each direction. The line will be built to a standard gauge of 4 ft. 8½ in., and will be connected with the main line at Plymouth. The line will be opened to traffic in the autumn of next year, and will be available for the use of the public from that time.

**Steam-Tugs on CANALS.**—The Birmingham and Liverpool Canal Company, which has recently established steam-tugboats for the tugging of loaded boats over their line, to save of horse-power, on Saturday evening dispatched to Liverpool, from the junction of their canal at Astleybridge, near this town, a team of sixteen loaded boats, constituting an aggregate weight of 10 tons each. One small vessel, with engine of 10-horse power, hauled the loaded boats steadily and rapidly from the starting point, and other engines were stationed at different parts of the voyage, which was performed in good style throughout.—*Warrington Chronicle.*

**Brown-Hawkins or FRENCH.**—It appears, from a recent published report, that the number of steam-boats in France in 1849 was 1700, and that of steam-engine boats 2000, exclusive of tugs, which were 100. Of these, 2000 boats, of which about 1000 were of French manufacture, were at work in the kingdom. Out of this number, 1700 supplied enough for 100000 passengers, and 2000 carried 10000 engines, 100 being low, and 9000 high-pressure. The 2000 engines represented a power of 10,000 horses, or of 100000 men. The number of tugs, however, was 100. In 1848 there were 1000 boats, 2400 being of French manufacture. Out of this number, 1700 supplied steam for water purposes, and most were attached to 1000 steam-engines, of which 1000 were of low pressure, and 2000 of high, representing 10,000 horse-power on the basis of continuous use. The number of tugs, however, was 100.





holders who may thus be subjected to be "plucked," that there is no truth in the rumour. It, however, behoves all parties, and more especially the shareholders in the London and Greenwich line, to watch the proceedings, and, so far as they possess the means, to check the too rapid movements of parties, who, it is to be apprehended, are influenced by motives—not dishonest, we admit, but at the same time such as may be calculated to militate against the interests of their constituents. We shall take care to keep our readers advised as to any information which we may acquire, and in the meantime recommend them to be watchful, and, while they repossess confidence, to see that such is not abused.

We cannot leave this subject without directing the attention of those shareholders in the London and Greenwich Railway who were absent at the late meeting of proprietors, to the protest and petition to the House of Commons, entered by Mr. GEORGE WALTER, who may be considered the projector of the line, and which appear in another column. We do not pretend to offer any opinion on the merits of the case, as the facts are before the public, and we believe that a conclusion has already been arrived at which admits of no doubt. We again say, that, while an amalgamation of interests is highly to be desired, care and caution, more especially on the part of the London and Greenwich shareholders, is indispensably necessary, if they would protect their rights.

We are glad to learn that the Miners' Company are progressing favourably, and that the infusion of "new blood" into its veins, by the issue of the shares which had not been previously subscribed, promises to realise the expectations of its proprietors; although, we fear, that the company must be considered as not having succeeded to the full extent of its original object—that of affording protection to the working miner. That the managers had to contend with the body of smelters, and to encounter opposition in every shape, they must have been fully prepared for on the outset—this was self-apparent; indeed, the very whisper, or idea, that the miner, or mine adventurer, should be in a position to assume an independent character, was in itself sufficient to rouse the ire of the smelters, and to awaken any dormant energies they might possess beyond those displayed in protecting their own rights. Hence it was incumbent on the company not to have made the attempt until they were satisfied that they possessed the sinews of war; and this, unfortunately, we have reason to apprehend, they did not, to an extent which justified the high position they assumed—as an illustration of which, we may refer to the futile attempts to dispose of three months' make of tin by public auction—the consumers being afraid to make a bid, for reasons well understood—while the smelting-merchants stood aloof; and what was the result?—the company were obliged to sell their tin by private contract, at a depressed price of some 5*l.* or 6*l.* per ton. It was subsequently divided between certain parties—the monopoly again existed, and prices recovered—the profit made—and the Miners' Company, so far as their object in obtaining an open market for this description of mineral produce, was defeated.

It is not our intention again to go over the oft-trod ground, but we cannot, in noticing the affairs of the company, forget that its praiseworthy objects were defeated by a clique—to which we may add, that the absence of pecuniary resources on their part precluded them from maintaining the high ground they had taken in the first instance. The Miners' Company, we fear, must henceforth be considered only as one of the body of smelters, for we are not aware that any peculiar advantage is held out to the adventurer—and the shareholders will, as a matter of course, realise profits in the most legitimate manner, their neighbours being no longer rivals in the sense which such term would apply to them on the formation of the company.

We do not like too much privacy—and have only, in closing our brief observations, to remark, that more publicity to the company's proceedings would be satisfactory to the miner, whose interests they profess to have in view, while we can assure them it would secure the support of the capitalist—for we can well understand that parties taking up shares, although as an investment, are, at the same time, anxious, in case of need, of finding a market for the disposal of their interest. The directors may rely upon it that, as a public company, reports are looked forward to, which, at the same time that they afford a guide to the capitalist and the shareholder, act as a wholesome check on the administration.

It will be observed, by a brief report which appears in another column, that the ordinary half-yearly meeting of the proprietors of the British Iron Company was held yesterday, Sir G. LARFENT presiding. The loss on the half-year ending 30th June was stated to be 13,457*l.* 1*s.* 6*d.*, which, considering the state of the iron trade, must be looked upon in a favourable light, when it is considered that during such period the extent of the operations of the company included the make of 18,738 tons of pig-iron, and 12,572 tons of bars—of which 10,858 tons were sold—besides the manufacture of 35 tons of steel, and sale of upwards of 12,000 tons of coal, raised from the collieries of the company, exclusive of that used at the works. We stated in a former Number that 10,000 shares had been registered—thus enabling the directors to carry out the proposed measures; since which, we understand, a considerable number of shares have likewise been appropriated. We regret to find the re-action which has taken place in the iron trade—for which, however, we were prepared, as it was not to be expected that so sudden a rise could be maintained. We have more than once expressed our opinion that it depends on the ironmasters themselves (if they were united in action) to obtain a remunerative price to the master and workman; but we fear that body is composed of elements and interests which will preclude them from deriving those advantages which are properly theirs, without doing an injury to the community, while it would enable them to give fair wages to the collier, the ironstone gatherer, the furnace keeper, the moulder, and the several industrial branches connected with the manufacture of iron.

**EXPERIMENTS ON COAL IN AMERICA.**—A gentleman who takes a deep interest in all matters relating to the advancement of home industry, has furnished us with the following results of a series of experiments in coal, made at a large sugar refinery established in New England, with a cylindrical boiler, steam blowing off at 22 lbs. above atmospheric pressure:

Lbs. Water.	100,000 per week.
17,400 lbs. Latigo, coked	100,000
17,400 lbs. Brown Meadow	100,000
19,400 lbs. Latkeson	100,000
20,000 lbs. Boston mud	100,000

Giving the following result:—

St. Latigo will cokage	9.50-10.00
St. Brown Meadow	9.00-10.00
St. Latkeson	9.00-10.00
St. Boston mud	9.00-10.00

—Thus showing a saving of more than one-half to the consumer in favour of the hard coal of this country. We do not wish for the accuracy of the several results. This alone we will say, that the information was derived from one who is acquainted with the establishment at which the experiment was made, and it was communicated to him for the purpose of aiding him in some statistical records on the products of the country, and which are intended for the public eye.—*New York Herald.*

**IRON TRADE—MANUFACTURE.**—We are sorry to say that the demand for our staple commodity—iron—has fallen of materially during the past week; nor can it be expected to go on long unless a reaction in trade takes place. It was fully expected six days ago, from the favourable news which would pass some weeks ago, that the iron manufacturers would have succeeded to give their workmen a slight advance in their wages; but in this hope we have been sadly disappointed, as the present low price of iron will not justify the last advance, and it is well-known fact, that the manufacturers are actually losing money by every ton they make.—*Financial Times.*

#### PROCEEDINGS OF PUBLIC COMPANIES.

##### THE BRITISH IRON COMPANY.

The half-yearly general meeting of the shareholders in this company was held yesterday, at the London Tavern, Bishopsgate-street, and was tolerably well attended. The chair was taken by Sir GEORGE LARFENT, Bart., who read the notice convening the meeting.—The minutes of the last meeting having been read, the CHAIRMAN read the following

##### REPORT.

The present is a half-yearly general meeting, appointed to be held by the regulations of the company. A report of the receipts and disbursements in the half-year ending on the 30th of June last, and the balance-sheet of that date, both signed by two of the auditors, are laid upon the table. The proprietors generally are aware that the prices of iron continued to rise during the whole of the period to which these accounts apply—having ranged as follows:—

At Newport, from 2 <i>l.</i> 12 <i>s.</i> 6 <i>d.</i> per ton in January, to 4 <i>l.</i> 6 <i>s.</i> per ton in June.
London..... 3 <i>l.</i> 10 <i>s.</i> .....
Liverpool..... 3 <i>l.</i> 17 <i>s.</i> .....

Cornwall..... 3*l.* 9*s.* .....

—being lower than was known at any former period, and, upon an average, fully 10 per cent. below the average of the previous half-year—the result, therefore, could not be otherwise than unfavourable; but, notwithstanding the selling prices being so much lower than in the previous half-year, the loss is less, by the sum of 2*l.* 6*s.*

The following is a brief statement of the operations of the half-year, and of their result:—

##### THE MAKE OF PIG-IRON.

Abercynon	5,151 tons.
Dudley Wood and Netherton, connected with Corgreaves	10,414
Ruskin	3,168

—Total make of pig-iron..... 18,738 tons.

##### THE MAKE AND SALE OF BARS, RAILS, AND OTHER MANUFACTURED IRON.

Made.	Sales.
Abercynon—Bar-iron and rails	21,150 tons.
Cornwall	5,129
Briery-hill	2,983
Ruskin	4,452

Total make and sales of bars, rails, and other manu-

Factured Iron	12,572 tons.
At Congreaves Steel Works, there have been made 22,000 tons of steel; and cold, 10 tons. At Abercynon, there have been raised 6,000 tons of limestone; and cold, 1,400 tons of stone-coal and cals., and 6,000 tons of limestone. At the Lion Colliery, there have been raised for sale 21,000 tons of coal, exclusive of the quantity used at the works.—The result has been as follows:—	10,858 tons.
Abercynon	4,810
Briery-hill	1,270
Ruskin	3,060
Lion Colliery	1,427

But there is a profit upon the operations of the half year of

Which leaves a balance of loss there of	500
Own Neath, the fixed rents are	4,022
And there has been a small outlay upon the property of	20

City-road Wharf, difference in rent..... 20

PROFIT.	12,572 tons.
Congreaves	4,810
Ruskin Valley—rent	190

Which, deducted from the above amount of loss, will leave a balance

of loss, and for fixed rents, against the works of

To which are to be added the amount paid for discounts	4,024
Amount in part of law expenses	700

To part of cost of the company's Act of Parliament, written off

800
60

Making the loss upon the business of the company, inclusive of rents and law expenses..... 4,747

In the report made to the proprietors on the 17th September last, the directors stated that they proposed to make a call of 2*l.* per share, payable on the 1st of the present month, with the view of liquidating a part of the preliminary notes of the company now falling due, but, finding that they were likely to obtain from other sources sufficient funds to discharge such amount of the debt as would be required to be paid off, they resolved to postpone the call till the 15th January next, in the belief that such an arrangement would be satisfactory to the shareholders. In conformity with the resolution of the proprietors, at the last general meeting, approving of the formation of any number not exceeding 100 shares in the company, on such terms as the directors should think fit, the directors have invited all shareholders to partake of the profits of the company, according to the number of shares held by them, and the amount of dividends declared by the directors, and the amount of the call paid by each shareholder.

In making this communication, the directors are desirous of expressing their unanimous conviction, upon the failure re-consideration of all the circumstances and position of the company, that the interests of the shareholders absolutely required the adoption of this measure. It is impossible that any of the proprietors could be more averse than the directors were to release from their responsibilities the parties in question; but they had a duty to perform to which they felt it their duty to oblige, and they are satisfied they have done in the course they have pursued—and upon their own opinion solely, but upon that of their legal advisers, and the eminent counsel they consulted, and also with the sanction of the committee of proprietors. The interests of the shareholders absolutely required the Act of Parliament, which has been obtained at the earliest possible period; this necessity had been fully recognised by the proprietors, and the directors feel it to be their duty to obtain it. The sacrifice of feeling to which they have been obliged to submit, in order to succeed, has been extremely painful; but in a pecuniary point of view, it would be easy to demonstrate that the course adopted has been, by far, the most advantageous that could have been pursued, and, under these circumstances, they have and trust that the proprietors will do justice to their exertions.

The directors have now to report, that applications having been received by the provisional committee from proprietors of the present company for upwards of 10,000 shares, the establishment of the new company has been accompanied by public advertisement—the managers of the different works have received instructions to take an account of their different stocks on the 2nd day of next month—and, as soon after that period as possible, it is intended that the properties should be transferred, and the operations started on an account of the new company.

The CHAIRMAN said, he had very few observations to make on the report, the first of which was, respecting the loss up to the 30th of June.

As stated in the report, the amounts to that period (though rather favourable afterwards) showed the most unprecedented difficulty in the iron trade, on account of the low prices.

The prices were lower, by 10 per cent., than they had been at the period of the former half-year, yet during the last half-year the losses were less by 20*l.* (Hour.). That was very much to be attributed to the manner in which the reductions had been made, the deep interest taken by the directors in the management, and by their endeavours in every possible manner to economise the make of iron.

With regard to the half-year after the 30th of June (that was, during the month of July and part of August), the prices of iron were lower than they were in June, when a rise began about the middle of August, and continued during the summer session, when iron was about 2*l.* per cent. beyond the prices of the same description in the previous half-year—and he only hoped the improved prices would continue, so as to revive the trade in this staple article.

With regard to the state of their funds, and the call that had been received, they had paid all those debentures which it was absolutely necessary to pay—being about 23,000*l.*, including interest.

The directors had postponed the call on the old company, as it was the wish of many gentlemen, expressed at the last meeting, who thought that two payments (one for the old company, and one for the new) might be inconvenient to many shareholders in the old company, who wished to take shares in the new one, but who could not meet the large payment of 2*l.* on each share so soon together; he treated, therefore, that, in postponing this till the 15th of January, after the payment of the dividends, they had met the wishes of the proprietors at large.

The next point was the formation of the new company.

The number of shares taken by the proprietors of the old company having exceeded 10,000, the company had been established—and, since that, applications for 20,000 more had been made.

As they were now of the period in which non-proprietors could come in (as was now publicly announced), they might expect that, unless proprietors came forward to a large extent, the public would inevitably be admitted to participate in the new company.

Arrangements were in progress for the new company to pay to the old company the sum of which the works were sold, and for the remainder, with part of that money, of the mortgage upon the estates in Mr. ATTWOOD, so that the final winding up of the old concern might take place within a moderate period.

He hoped, with the prospect now before him, that the new company would be the means of propounding reference to the members of the old company.

He could assure the meeting, in conclusion, that the directors would continue to do the best they could for the old company, and for those parties who had not thought fit to enter into the new company, and, if no questions had any question to put, he would close the adjournment of the meeting.

Mr. BROWNE.—In paying off these debentures, have you raised money for the purpose of 4*l.* or 5*l.* per cent.?

—The CHAIRMAN: No change still less than 5*l.* per cent.—Mr. BROWNE wished to know the exact and total number of shares subscribed for the new company?

—The CHAIRMAN: The number applied for and allotted is 10,000, and the further number applied for is upwards of 20,000, including scrip shares.—Mr. H

On Tuesday last, by special invitation, a number of gentlemen connected with railways and engineering, and several members of the press, assembled at the experimental wooden tramway, Vauxhall-bridge-road, for the purpose of witnessing some trials of the capabilities of wood rails, in connection with Frosser's patent safety bevel wheels, applied to locomotive-engines previous to their removal, as it is intended to cease running on the 25th instant. Under the head, "Important Railway Improvements," we noticed the first experiments in the "Mining Journal" of the 21st ult., since which the locomotive-engine, weighing four tons, has been continually at work, having completed, up to Tuesday last, 1,733 miles—being 17,232 trips, and equal to twelve locomotives per day, running 4 years and 22 weeks. The length of the line is but 174 yards, in which distance there are four different gradients—viz., 1 in 5, 1 in 50, 1 in 400, and 1 in 22—in every case, satisfactory; after running backwards and forwards for a considerable time, showing the complete command which the engineer could be stopped or backed, one of the front wheels was taken away, and the carriage still running at the same speed, and with the same degree of safety, on the front bevel wheel, thus showing that, with carriages on this construction, should any of the axlesets, either of the engine or the passenger carriage, break, they would proceed equally as well, and the passengers, in fact, be totally ignorant of the circumstance. Objections were entertained by one or two gentlemen present, to the extra friction of these bevel wheels, when compared with that of the flange on the common rail-gauge; when the line of railway is straight, these wheels are seen to touch the rail only just sufficient to keep the engine in a direct course, and, indeed, never run on their axis, and it is only on curves where the centrifugal force gives a tendency to the engine to fly off on the outside of the curve, that two of the four bevel wheels—viz., the off front and the near hind ones—become firmly against the edge of the rail, and conduct the carriage safely; nor even here can there be much friction, as the wheeling of small diameters, and at right angles with the rail, in all parts of the curve, constantly rotates, and are never subject to that skidding, or scraping, against the sides, which, on curves, the flange wheel is always subject to. So may and complete is the motion on the curves above mentioned, that no doubt whatever is entertained, but that one with a radius of 100 feet might be got over with facility, and without the slightest danger, and, through the short length of the line in question has precluded the possibility of trying the full speed which might be attained on this description of railway, yet a rate of thirty miles per hour, we believe, has been accomplished, and in practice a speed of sixty miles per hour is calculated upon the holding power of wood, as compared with iron rails, and the increased capabilities in consequence of ascending inclines of such gradients—that with the latter the ascent could never be accomplished. The incline of 1 in 22 is at the extreme northern point of the line; here the carriage was made stationary, five or six yards from the top, and, on turning on the slope, reached it with the greatest ease, and remained at rest, requiring, without reversing the engine, considerable force applied to the wheels to make it descend; this was repeatedly performed, and with the same success. A trial was then made at the south end of the line, where the gradient is 1 in 5, but, from a striking of one of the sleepers, was equal to 1 in 8; here, however, the considerable difficulty was experienced, the driving wheel continually slipping round, and reaching only within about three feet of the rail; the morning was, however, dry and cold—the rails were wet, almost greasy—and very unfit for the experiment; still, on throwing a little sand on them, the engine at length accomplished it, repeating it several times, and this on an incline never, we believe, attempted even in experiments on iron rails, and without the slightest connection on; with a train of full speed, inclinations of 1 in 10, of great length, might be got over, and save the enormous expense of deep cuttings, embankments, timber, &c.—indeed, the average cost of formation of a line of railroad of prepared wood, as compared with iron, may be estimated at about one-half, and the working expenses, maintenance of way, &c., in about the same proportion. One important question, as connected with this subject, is the durability of the material of which the rails are composed—durability of wood prepared by Payen's process under all ordinary circumstances, and the fact that this experimental line, though only of Scotch fir, has stood the wear and tear equal to upwards of four years, of twelve tons per day, on a practical line, without a single rail being chilblained, it does not appear that the usual friction of the wheels of the train have much effect upon its motion, or that the bevel wheels exercise any abiding pressure on the edges, which consist as sharp as they were the first day they were laid. The durability of the wooden rail under practical circumstances, however, only to be determined by time, and, as it is probable that a branch line from one of the principal lines out of London will shortly be laid on this principle, a fair opportunity will be given of testing its qualities in all its various bearings, and though, in connection with most writers, when the first idea of wooden rails was brought under notice, we have no doubt as to its merits, and confidence in its possibilities is quite commensurate ground, while there are not a few who have watched the working of the line who feel satisfied that it will, at no very distant day, be a most valuable adjunct to our present railway system, and give immense facilities for the construction of lines in areas hitherto where the cost, on the present principle, would be a complete bar to their formation.

After the experiments were gone through, Mr. Motley, C. E. (of Bingley) exhibited before the company a beautiful drawing of his design for a gallery of mines and conservatory, over Waterloo-bridge; it was about 30 feet long, and elicited much applause; this structure, which is in a classic Grecian style, successfully harmonizing with the Duke of Wellington's bridge, is intended to connect the bridge, and taking, as a full standard, the example of the Polytechnic Institution, is calculated that a dividend of at least 10 per cent. would be necessary to the proprietors for the capital expended.—We have had several opportunities of ascertaining our opinions with exactness from the pen of Mr. Motley—one of which, inserted in the "Mining Journal" of 11th March, on an Elizabethtown Suspension Bridge, of his invention, with illustrations, we have pleasure in now referring to, as leaving no general approval—and we shall readily afford space for a full and detailed description of his ingenious apparatus, which we have no doubt will prove extremely successful in realizing the bold prospects of the shareholders of one of the first structures in Europe.]

**Mr. Payen's Wine Preservation Process.**—An interesting interview concerning appears to have taken between Mr. Payen and a gentleman to whom he applied for permission in presenting foreign persons for his invention. The discussions on the subject occupied considerable time before the Vice-Chancellor on Wednesday and Thursday last, but, as it soon only on the ability of the patent, or the value of the invention, we do not feel called upon to enter into the subject, suffice it to briefly state, that the Vice-Chancellor's views were decidedly with Mr. Payen, and in whose favor his decree was made. We are informed, however, that an appeal is contemplated.

**Mining interests in the United States.**—The half-yearly general meeting of the company took place on the 21st ult. on Woodstock road, when a dividend of 10 per cent. was declared for the last half year. Some of the principal men of business in the country were present to witness the proceedings, and a considerable interest in the meeting was to be seen throughout the room. The meeting that the majority of these brought down the company's mode and manner of doing business, was greater than it had ever been before. The chairman (W. H. Phillips, Esq.) stated in the progress of the meeting, that the company had paid great attention to economy in the management of their concerns, and had reduced their expenses to the lowest point, so as to make the company's position, so far as we are concerned, as good as any other in the field. A. C. Green, secretary to the company, said that the dividend given by the company at the half yearly meetings, to the proprietors who were entitled to it, had been distributed, and that each person claimed his due. After numerous discussions, the meeting was adjourned for a committee to consider the question of their division of the net profits, and to determine the amount of the dividends to be paid to the members. The meeting was adjourned.

## THE MINING JOURNAL.

### ORIGINAL CORRESPONDENCE.

#### ON THE INCORPORATION OF BOILERS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—Observing some correspondence in your Journal on the incorporation of boilers, occasioned, in some measure, I have no doubt, from my advertisement, allow me to remark, for the benefit of those who may be inclined to try these suggestions—rather than pay a trifling fee for a trial and warranted remedy—that the plan proposed by Mr. J. Murray, of employing sulphuric acid, is anything but consistent with chemical laws, and would, independently of proving highly injurious to the boiler, increase rather than prevent the incrustation. The recommendation of "Mechanique," that of using monoxide gas, and of others, for removing scale, potatoes, glass, &c., are very rough experiments—increasing the tendency of boiler to "prime"—of affect the incrustation, certainly do not prevent losses.

As I have had very considerable experience in this matter, and have reason to know, from practice, its immediate and prospective importance, I must add, that no single remedy will meet every case—the incrustations do not arise from one source alone, but vary widely in different localities, and require a practical acquaintance with chemistry to determine the remedy; for this purpose, where I am not acquainted with the spot, I make it a point to analyse either the water or the "soil," before deciding on the remedy—and, therefore, undertaken a task of no slight labour, I trust I shall meet with that liberal feeling and support which the subject merits. F. HAM, C.E.

Norwich, Nov. 12.

#### BARON VON RATHEN'S PATENT INVENTIONS FOR ECONOMY OF FUEL AND PREVENTION OF SMOKE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—I have the honor to direct your attention to an advertisement, with reports and testimonies, of the immense results of trials and experiments made upon my inventions, which appeared in yesterday's Times, and beg the favour of a little of your valuable space, to say a few words on the great benefit which would accrue to mankind, individually and collectively, by the universal adoption of these patent apparatus. Firstly, to manufacturers and other proprietors of steam-boilers, &c., it is evident, from the result of the first trials of these apparatus, that only one steam-boiler is required, where, on the old system, two would be used. This is of great advantage to steam-boilers, whose economy of space must be a principal object; and I believe I am right in stating, that no other inventor has ever proposed to do with one boiler, what now requires two. Besides this, the saving of fuel has been proved to be very great. It is impossible to say, exactly, what that may be in different kinds of boilers; but, in the above-mentioned cases, it has been about 40 per cent. to steam-boilers going long voyages—this will be an immense advantage. The increased durability of the boiler, and safety from explosion, you will agree with me, is a matter of the greatest importance to all classes, when we consider the enormous sacrifice of life and property caused annually by the explosion of steam-boilers; and I need hardly mention the increase of health and comfort which would be felt by the inhabitants, particularly of large towns, from the prevention or destruction of the smoke-flooding; then, that such inventions ought to be generally known and adopted. I have no hesitation in addressing you, and in begging of you to insert this information in your valuable Journal, whose principal objects are known to be, the advancement of mines and public good.

VON RATHEN.

London, Nov. 12.

#### THE MINING INTEREST—THE STRIKE, AND ITS EFFECTS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR.—I have to complain of your correspondent, "H. W.," having addressed you a second letter, ever my reply to his first appeared in your columns; but, full of fire and fury, with steel (pew) well tempered, hitting the bit, without a hiss or hissing snap, he plunges deeper in the mine, in the vain hope that he may, by the "spinal," he makes, beset other, reckons of the injury he does himself or the parties he represents.

I shall endeavor, Sir, to reply to him briefly, as is not necessarily to trouble your columns, by referring to the battle of Waterloo, Buonaparte, or "the Duke;" nor shall I talk of the battle of Trafalgar, the Nile, or the hero of the cause. I will, therefore, skip over these first paragraphs, except that I may say, although your correspondent cannot succeed to fight Don Quixote's battles over again, he must remember that it is not with "wood-steel" he has to contend, while his wit is sublimed when put alongside that of Sanchez Panza. "H. W." states, there can be no question but "that copper is selling at a lower price than it was eighteen months ago," and then he follows on by observing, "this fact alone proves nothing as to the effect of the new tariff." If, Sir, the question was simply this, I would take "H. W.'s" words, and wait no more to justify my position. I next find that your correspondent disclaims all personal connection or interest with the smelters, either individually or as a body. There was no occasion for this parade of adjectives and epithets of the smelters, as opposed to the home-miner and mine-owner, I again repeat, he most plod guilty. "H. W." is in disaccord with me, that I hardly know what point to take him upon; while, to use one of his fancy similes, I presume that, like the military culprit under the lash, as reported in Joe Miller, it is impossible to please him, hit him high or low. His adversary does merit all praise as an able "tactician," although he evidently doesn't like the compliment, for he takes good care to avoid the main point, while he pretends that amplitude of words tends, at least, to one cause, and, at the same time, to worry, the reader—but I am beginning to suspect, and, not even "H. W.'s" example need be put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown language, and, not even "H. W." can be induced to put forward as an excuse for my prolixity. I now approach the fifth paragraph, and, although I may not possess "a good piece of lumber," nor "a house at its tide," yet I am ready to throw down the gauntlet, and give "you" an invitation to battle on the real facts of the case. I now begin, Sir, many of your readers, in perusing your columns, are waiting at the word wood and high-flown

and commerce, troubling me greatly, and stating it was high time a step should be put to a system in which the honest tradesman has no chance whatever; and, looked, as I am sure I shall be, by every one who feels an interest in transacting business in a legitimate manner, I feel bound to again appear in your columns, and will continue to do so, in spite of all low-lived abuse.—*Son professed Amour, et quel force renouvelé.*

I am, Sir, your obedient servant,

Christopher Hall, near Newcastle-under-Lyne, Nov. 14. G. A. M'DRAGGON.

#### VALENCIA SLATE.

It is, at all times, highly gratifying to be enabled to lay before our readers any circumstances connected with the development of the mineral resources of Ireland, and we have noticed, with much pleasure, the introduction into this country of slate from the Island of Valencia, in the county of Kerry. This island is the property of the Knight of Kerry (Fitzgerald), and the quarries are leased by Bewick Blackburne, Esq.; the slate is most excellent in quality, quite equal in strength, texture, and size of slabs to the very finest of the Welsh article, and bids fair, from the facilities of transit and consequent economy in price, to cause an extraordinary influence on building generally; it leaves the quarries in a fully prepared state, sawn on both sides, and gauged to regular widths, with finished edges. The great bearing powers of slate generally, as compared with other stratified bodies, is well known, and from some experiments made by order of the Board of Ordnance, it has been found that to break slabs of the like dimensions of strong paving-stone and Valencia slate, the former fractured at 2 cwt. 2 qrs. 23 lbs., while the slate bore a weight of 11 cwt. 1 qr. 25 lbs. From its non-absorbent properties, it is totally impervious to moisture, which renders it admirably adapted for basements, ovens, wine bins, oil and water cisterns, salt stores, sugar-houses, butchers' and fishmongers' stalls, slaughter-houses, &c.; while 4-inch slabs, finished in a most superior manner, have been introduced to a considerable extent for skirtings, and shingles for roofs and papers, and a thicker description for chinked ball pavements, where it contrasts beautifully with Portland or York stone. The Valencia slate stone has been used at the National Gallery, St. Thomas's Hospital, New Bethel Hospital, Whitechapel, Woolwich Dockyard, Bristol Custom House, St. Olave's Grammar School, East India Dock steam warehouses, and the Westminster Hospital, besides numerous other places. The quarries are in active work, and have been for some years, they are, in the common acceptance of the term, inexhaustible; and capable of being worked to any extent. Some objections were made to the first importations, being from the upper surfaces of the quarry, and, consequently, irregular in texture, as well as in appearance; these can no longer exist, as the stones are now obtained from the most perfect part of the rock, and from the very superior and efficient manner in which they are squared and dressed, and the low price at which they can be rendered, they are getting into very general demand, and we think there can be no doubt that the success which attends the exertions of the enterprising holder of the Valencia Slate Quarries, will induce many proprietors of mineral wealth in Ireland, to take measures for its development, measures which must not only produce immense benefit to the population, but which will, in most cases, when undertakings are carried on in a scientific and legitimate manner, prove a source of great profit to the proprietors.

#### TERRESTRIAL MAGNETISM.

An important communication was made by M. Aimé to the Paris Academy of Sciences, on the 7th inst., on terrestrial magnetism. It is known that magnetic declinations and inclinations are of two kinds—the one perpendicular, the other progressive; the first depend on the position of the sun, and vary with the hours and seasons. Graham was the first to notice this fact, in the year 1722, and Cassini confirmed his observations in 1763; but the first continued and complete observations on the subject are due to M. Arago, who, in 1818, ascertained that the magnetized needle, on the existence of an aurora borealis, was suddenly deranged, not only in the places where the aurora was visible, but also in countries where this was not the case. In order to throw light upon this phenomenon, M. Arago induced M. Kappeler to undertake at Kasan a series of magnetic observations in concordance with those of Paris, and from the comparison of these two series resulted the fact, that the maxima and minima of the deviation observed at Kasan corresponded with the maxima and minima at Paris at the same moment. This result once known, the attention of scientific men was roused, and observations were simultaneously made in different parts of the globe. In order to follow up these discoveries, the Academy of Sciences, on the proposition of M. Arago, charged M. Aimé to make a series of observations at Algiers, and provided him with proper instruments for the purpose. His observations commenced in June, 1841, and were continued until the end of 1842. Amongst the results stated by him to the Academy are the following:—He says there exists between the temperatures of the surface of the globe and the magnetic declinations a complete correspondence, that is to say that the variations of declination may be generally considered as the consequence of those of the temperatures of day and night, and if this mode of viewing the subject be correct, there must be found in eclipses of the sun a deviation in the normal diurnal course of the needle of declination. As to the annual variation, on comparing the observations of M. Aimé with those of Captain Biscart, made in August, 1832, it is seen that it was in nine years 24 min. 36 sec., which gives per annum 2 min. 4 sec. of diminution of declination. M. Aimé found that the curves of declination varied little in winter and summer, and that it is towards the equinoctial that the most striking anomalies are manifested in the march of the magnetic needle. M. Hensoldt and other scientific men having expressed an opinion that it would be important to watch carefully the magnetic variations during the periods of the falling stars, M. Aimé did not fail to attend carefully to this suggestion during the month of November, 1841, but the periodical fall of these meteors was not visible at Algiers, and if it did take place it had no action on the magnetic needle.

#### ON COATING IRON WITH ZINC AND COPPER.

At the Society of Arts, Adelphi, on Wednesday evening last, a paper by Mr. Fallatt, of the firm of Rikington and Co., Moorgate-street, "Upon the Various Methods of Coating Iron with Zinc and Copper," was read by Mr. Whishaw, the secretary.—It commenced by noticing how essential iron was to the wants of man, and, though of such importance in the arts, it was liable to continual decay under almost any circumstances, from its great affinity for oxygen, which was of that incisive character, that, as soon as one coat of oxide was formed on the surface, continual oxidation went on beneath, until the iron was quite decomposed. The metal needles hitherto adopted for preserving iron—viz., point and tin—were noticed; both these are cheap, but not durable, and tin being the negative metal, as soon as the metal came in contact with water, the tin was preserved at the expense of the iron, which gradually rusted away; this action might be noticed in almost every street in London, where iron filings were soldered into the stone coping; the lower part of the rail, in connection with the soil, would be found to be gradually wearing away, and this was from the action of water upon the metal. After describing the history of the discovery and improvements in the mode of employing galvanic action, the paper proceeded to detail the methods now adopted for coating iron with zinc and copper. In the former case, 1 lb. of sulphate of zinc is dissolved in one gallon of water; the iron is to be well cleaned with sulphate acid, and covered with sand; it is then to be placed in the solution, and connected to the negative end of a galvanic battery; after a time it is to be again cleaned and covered, and then returned to the solution, until it has acquired the necessary thickness of zinc. With copper the process is nearly similar, the solution being a form-cyanide of copper in a capsule of platinum.—These observations rested upon the subject, and a variety of specimens on the table were inspected, on the subject of the complete covering of zinc, and their durability. Mr. Fallatt stated that they had covered 18-inch bolts of iron, coated with copper, to be driven into oak 24 inches thick—working, in the first place, but a small hole, so that it required great force to effect it, yet, on suspending the bolt, it had been found not to have lost a portion of the coating; they had also been heated red hot, and plunged in cold water, without the slightest sign of separation.—We are happy to see the increasing interest of this interesting and valuable institution. Since the death of its late illustrious president, there has been an addition of, we believe, some hundreds of members, and, since the commencement of the present session alone (November last), the proceedings are three thirty in forty, and it is highly to the credit of the vice-president, and the various committees, as it is to the individual secretary (Mr. Francis Whishaw), that no exertions are spared to render the transaction of the utmost possible usefulness to the advancement of science and the arts.

#### MINING CORRESPONDENCE.

##### ENGLISH MINES.

###### BATALLACK MINING COMPANY.

Nov. 14.—Accommodation on the mine of costs and receipts for July and August:

Dr.—To wages, £275. 10s. 10d.—Merchants' bills, £214. 10s. 10d. .... £489. 10s. 0d.

Cr.—By balance in purser's hand last account ..... £275. 10s. 0d.

Copper sold August 19 and Sept. 7 ..... £75. 12s. 2d.

Deduct dues ..... 26s. 10d. £447. 1s. 7d.

The sold, ditto ..... 780. 10s. 3d.

Deduct dues ..... 34 s. 10d. £822. 12s. 6d.

Leaving a profit of £321. 10s. 6d., from which deducting £6000, for a dividend declared this day, a balance is left in the purser's hands of £611. 10s. 6d.

###### HOLMBOESE MINING COMPANY.

Nov. 13.—Hitchins's shaft is sunk below the 100 fathoms level 10 fms. 1 ft., and the ground still favourable for sinking. In the 110 fathom level, on the south side, west of Goldsworthy's mine, the hole is one foot wide, and worth 16d. per fathom; on the north side, west of the mine, the hole is much improved in size—sixteen inches wide, and worth 30d. per fathom; east of the mine the hole is twenty inches wide, and worth 40d. per fathom. In the 100 fathom level, west of Hitchins's shaft, the ground is favourable for driving; in the eastern slopes in the back of this level the hole is eighteen inches wide, and worth 30d. per fathom; in the western slopes the hole is twenty inches wide, and worth 40d. per fathom; in the mine sinking below this level the hole is fifteen inches wide, and worth 16d. per fathom. In the cross-cut towards the Flapjack hole the ground is hard for driving. In the ninety fathom level, west of Hitchins's shaft, the hole is one inch wide, composed of cal, spar, and mudstone; in the slopes east of Hitchins's shaft, in the back of this level, the hole is eighteen inches wide, and worth 40d. per fathom; west of ditto the hole is one foot wide, and worth 30d. per fathom. In the cross-cut south of the eighty fathom level the ground continues favourable for driving; in the slopes in the back of this level the hole is fifteen inches wide, and worth 30d. per fathom. The pitches are looking well. T. RICHARDSON.

###### NORTH HOLMBOESE MINING COMPANY.

Nov. 9.—The water has increased in the engine-shaft, so as to prevent its being sunk any deeper at present. The wheel pit is now being walled up, and the engine-work preparing as fast as possible. The hole in the adit end is now about twenty inches wide, composed of gneiss, mudstone, and spar, and by the end of this week the level will be far enough west for a cross-cut to be driven, which will communicate with and unwater the shaft. T. RICHARDSON.

###### SEAFORD UNITED MINING COMPANY.

Nov. 13.—Wheat Marquis: The new engine-shaft is now 10 fms. 1 ft. below the thirty-five fathom level. In the thirty-five fathom level west no alteration since last report; the hole in the thirty-five fathom level east is about two and a half feet wide, and worth about 14d. per fathom. In the twenty-five fathom level east the hole is twenty inches wide, composed of gneiss, spar, mudstone, and stones of ore, and promising improvement. The pitches, on the whole, are looking well. J. PHILLIPS.

###### CALLINGTON MINING COMPANY.

Nov. 13.—I beg to say the north engine-shaft is sunk about 9 fms. 3 ft. below the sixty; at this level driving south, the hole is six inches big, tributary ground. In the fifty south the hole is one foot big, a good course of silver-lead ore. In the forty south the hole is about nine inches big, four inches of it being work. The thirty north is unproductive. The fifty east, no copper hole is about eighteen inches big, with stones of ore. Our tributary pitches are looking well. At the south mine we have forked the water within fifteen feet of bottom; the shaftmen are now engaged in cutting ground for plough-lift at the seventy. The forty north we have set to drive to six men. The sixty north will be cleared, and in order for driving in two or three days. J. JONES T. PHILLIPS.

###### TREJEDION CONSOLIDATED MINING COMPANY.

Nov. 13.—At the eighty, east of Christine, the hole is three feet wide, worth 16d. per fathom, and is a very kindly hole. At the eighty west the hole continues poor and disordered. The seventy east is two feet wide, without mineral. At the mine sinking under the seventy east the hole is two feet wide, and worth 8d. per fathom. At Grand Fortune shaft, sinking under the fifty fathom level, the hole is three feet wide, and worth 16d. per fathom. At the fifty west the hole is the same as last week—the men having been employed rising against the mine from the forty-four, which is now completed; and the fifty east is eighteen inches wide, with good stones of ore. W. SYMONS.

###### WEST WHEAL JEWEL MINING ASSOCIATION.

Nov. 13.—At the eighty-five west, on Wheal Jewel hole, we have not yet got two links of cross-crosses in the past week, which have disordered the hole; the ground in this level is much more favourable for ore than last reported. The fifty-seven east, on Buckingham's hole, is improved since our last—it is now worth 16d. per fathom. There is no alteration in any other part of the mine since our last. We shall sample this week about 350 lbs. of ore. S. LEAN.

###### CONSOLIDATED TREFOYL MINING COMPANY.

Nov. 13.—The hole in the fifty fathom level, west of Hennwood's shaft, is three and a half feet wide—very good tributary ground; ditto, east of Hennwood's shaft, is fifteen inches wide—tributary ground. We have cut the cross-course to the forty fathom level, east of Hennwood's shaft, and have suspended this rod until a rise is found for ventilation; the hole in the rise, in the back of this level, east of Hennwood's shaft, is six inches wide—tributary ground. The hole in the mine, sinking under the forty fathom level, west of Hennwood's shaft, is one foot wide—very good tributary ground. H. WILLIAMS. J. MORCOMBE.

###### CORNISHIAN MINING COMPANY.

Nov. 13.—At the seventy fathom level, driving west of Murray's engine-shaft, we are pleased to inform you that Christine hole is productive, being one foot wide, and yielding rich work; but it has an extremely promising appearance, and we have every reason to believe that a quantity of good ground is immediately before us; at this level, driving west also from Murray's shaft, we find the ground to be favourable, but the hole is at present yielding little or no lead. In the seventy fathom level east, going west of great engine-shaft, the hole is three feet big, varying two branches of silver-lead ore. In the eighty fathom level the hole is from two to three feet wide, one foot of which is very. In the seventy-five fathom level the hole is two feet wide, composed of cup, spar, and some good work for silver lead ore. In the eighty-five fathom level the hole is two and a half feet wide, yielding ore, but not rich. In the fifty-five fathom level the hole is about one foot wide, closely intersected by fine-spar, intermixed with silver-lead ore. In the forty-five fathom level the hole is two feet wide, closely composed of cup, intermixed with ore, in the thirty-five fathom level the hole is one foot wide, six inches of which is good working work. The Justice shaft is about eighty fathoms below the thirteen fathoms level on the incline, and the ground continues favourable for working. At the north mine we are, on the whole, getting on favourably. In the thirty fathom level, driving north, the hole is one foot wide, working work; in the same level, driving south, the hole is poor; in the mine, sinking from the seventeen fathom level, the hole is fifteen inches wide, six inches of which is very work. At Wheal Hennock the miners are progressing on with the engine-house, but not so fast as we could wish, on account of the severe weather, and the difficulty of getting stones for building; the railroad from the wheel to the engine house is completed. J. BREWER.

###### CHURCHILL'S LEAD MINING COMPANY.

Nov. 13.—In the 125 fathom level we have not broken any hole since my last report. In the 125 fathom level the hole is two feet wide, producing ore, but at present not rich. In the 110 fathom level the hole is eighteen inches wide, one foot of which is good work. In the 100 fathom level the hole is two feet wide, producing working work. In the eighty-five fathom level east the hole is three feet big, varying two branches of silver-lead ore. In the eighty fathom level the hole is from two to three feet wide, one foot of which is very. In the seventy-five fathom level the hole is two feet wide, composed of cup, spar, and some good work for silver lead ore. In the eighty-five fathom level the hole is two and a half feet wide, yielding ore, but not rich. In the fifty-five fathom level the hole is about one foot wide, closely intersected by fine-spar, intermixed with silver-lead ore. In the forty-five fathom level the hole is two feet wide, closely composed of cup, intermixed with ore, in the thirty-five fathom level the hole is one foot wide, six inches of which is good working work. The Justice shaft is about eighty fathoms below the thirteen fathoms level on the incline, and the ground continues favourable for working. At the north mine we are, on the whole, getting on favourably. In the thirty fathom level, driving north, the hole is one foot wide, working work; in the same level, driving south, the hole is poor; in the mine, sinking from the seventeen fathom level, the hole is fifteen inches wide, six inches of which is very work. At Wheal Hennock the miners are progressing on with the engine-house, but not so fast as we could wish, on account of the severe weather, and the difficulty of getting stones for building; the railroad from the wheel to the engine house is completed. J. BREWER.

###### THOMAS SMITH'S MINING COMPANY.

Nov. 13.—In the seventy fathom level, east of Williams's shaft, the hole is two and a half feet wide, eighteen inches ore of fair quality, worth 16d.

per fathom; the hole is six feet wide, producing ore throughout, of low quality, worth 16d. per fathom. In the mine, under the fifty fathom level east, the hole is four feet wide, two and a half feet good ore, worth 30d. per fathom. Wheal Sparrow.—In the thirty fathom level, east and west of Turner's shaft, the hole is three and a half feet wide, two feet ore of fair quality, worth 16d. per fathom. In the mine, under the fifty fathom level west, on Stacey's hole, the hole is fifteen inches wide, nine inches good ore, worth 16d. per fathom. In the ten fathom level east, on Stacey's hole, the hole is one foot wide, eight inches good ore, worth 16d. per fathom. In the adit end, east of Richard's shaft, the hole is one foot wide, eight inches producing ore, worth 16d. per fathom.

W. RICHARDSON. N. LANGDON. S. H. PRANCE.

###### TINCROFT MINING COMPANY.

Nov. 13.—Since my last report, the hole in the new engine-shaft, sinking below the seventy fathom level, has very much improved for copper ore, and of good quality: I shall be able to state its value per fathom in my next. The hole in the seventy east continues large, with good stones of ore; in the same level west the hole is also large, but disordered by cross branches of spar; in this end we expect to cut the cross-course in a short time. In the sixty east the hole is four feet wide, worth 16d. per fathom, and very promising ore; no hole taken down in the sixty west for some time. The fifty east is yielding some ore, and kindly; the mine in the bottom of this level is worth 16d. per fathom; the fifty west is worth 16d. per fathom, very promising; the forty east is worth for the tin and ore about 16d. per fathom, some level west is worth 16d. per fathom. Other tufwork places remain stationary. The pitches in both north and south mine continue to look favourable—on the whole, our appearances are better than when I last wrote—prospects good. WILLIAM PAUL.

###### FOREIGN MINES.

###### ST. JOHN DEL KEY MINING COMPANY.

Morris Folke, Aug. 22.—In the mining department everything is going on satisfactorily, as far as the want of various mechanics' work will permit. The eastern and western end, driving to extend the East Cacheoir, has got on very well indeed this month; if the driving be continued at the same rate, the level will be holed by the end of October, and this mine lengthened by some thirty fathoms, and ready for laying a tramroad right along the mine to the spelling-floor. The Christians bridge is drawing near to completion; by Tuesday next the water will cross it, I expect, and by the 5th of September this water will be available thenceforward for four-fifths of the present number of stamp-heads, and, when the new stamps are ready, for five-sixths of the whole number.

###### IMPERIAL BRAZILIAN MINING ASSOCIATION.

Gongo-Soco, Aug. 14.—A little gold was obtained on the 5th inst. from an arch of ground in the back of the fourteen fathom level, between Walker's and Alcock's shafts. The ore broken in sinking on the Camara hole is now bringing in, and I hope by the next post to inform you of the result of a few days' stamping of the same.

Aug. 23.—Since I last addressed you, rather an interesting discovery has been made. In my letter of the 2d inst. I mentioned the re-opening of an old cross-cut between Walker's and Alcock's, and that a rise had been commenced, as no vein had been met with in the north wall of the junctions; in this rise, a few days since, a very kindly looking vein was cut, within five or six feet of the surface, and about four "hat-spans" of work broken from it, which produced nearly 1 lb. of gold. The vein is about 20 fathoms to the south of the main vein, which was worked on in Walker's and Alcock's shafts; much cannot yet be said of its promise for the future, as but little of the vein has been laid open; preparations are in progress for making further trials at a deeper horizon. The result of the experiment on the Camara ore is as follows—viz., 10 tons of the hole yielded 4 oz. 12 dwt. 12 grs. in fourteen hours in 13-head stamps—a far more favourable result than has been obtained from any trials on the Camara hole; a pair of men are still employed sinking on the hole, and, as soon as a sufficient quantity of ore is broken, another trial by stamping will be made. The last ten days' produce from the stamp is less than it would have been, from the gold being cleaned up a day or two sooner than usual, to allow of the departure of the troops. Mr. Fitzpatrick left this on the 21st inst., in charge of the gold train, taking with him two cases, each containing 20 lbs.—together, 72 lbs. of gold dust. They left here ten or twelve days earlier than usual, in order to be in time to meet Mr. Headland, that he might not be detained at Rio de Janeiro.

Sept. 4.—The vein mentioned in my last has yielded two or three hours of work for the washing house, which gives the produce of the mine entered to the gold accounts on the 20th and 21st of August, since which the vein has continued poor; a level is driving east and west on its course, but the appearance is not so promising as we could wish. In other parts of the mine no change for the better has taken place. The produce from the Taubaté is much less than usual; the stamp was idle part of the month, from the failing of the paddles which convey the water to the wheel. At the Camara the same force is employed sinking on the hole, and, as soon as a sufficient quantity of ore is broken, another trial will be made by stamping it. At Cata Preta, a shallow cross-cut, which was commenced in order to bring out the stones for the stamp, has, after being driven eighteen fathoms, cut the hole; we shall now commence breaking ore against the stamp as ready. The works do not progress so fast as I could wish, from the great difficulty in obtaining labourers.

###### Gold Report.

August 22.	Stamps
------------	--------

